

## WHAT IS CLAIMED IS:

1. Use of a human cytomegalovirus (HCMV) protein or fragment thereof in the preparation of a medicament for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal, wherein said medicament is administered to the mammal in an amount inducing cell mediated immunity and/or antibody response to HCMV in the mammal.

2. Use according to claim 1 wherein said HCMV protein is selected from the group consisting of HCMV proteins pp65, IE, IE-exon-4, pp150, gB, gH, pp28, and pp52.

3. Use according to claim 1 or 2 wherein the medicament is administered to a mammal in a low dose comprising between about 10 and about 80 mgs protein per inoculation.

4. Use of a nucleic acid sequence encoding a human cytomegalovirus (HCMV) protein or fragment thereof in the preparation of a medicament for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal, wherein said medicament is administered to a mammal in an amount inducing cell mediated immunity and/or antibody response to HCMV in the mammal.

5. Use according to claim 4 wherein said medicament comprises an attenuated, live HCMV.

6. Use according to claim 4 wherein said medicament comprises an inactivated HCMV.

7. Use according to claim 4 wherein said nucleic acid sequence is a recombinant viral vector comprising a nucleic acid sequence encoding said protein or fragment under the control of a regulatory sequence capable of directing expression of said HCMV protein sequence.

8. Use according to claim 7 wherein the recombinant viral vector is a recombinant virus selected from the group consisting of adenovirus, poxvirus, and retrovirus.

9. Use according to any of claims 4 to 8 wherein said medicament is administered in a low dose comprising of between  $10^3$  and  $10^7$  pfu per inoculation.

10. Use according to any of claims 1 to 9, characterized in that the medicament is co-administered to said mammal with an immunogenic *Chlamydia pneumoniae* protein or fragment thereof.

11. Use according to any of claims 1 to 9, characterized in that the medicament is co-administered to said mammal with a nucleic acid sequence encoding an immunogenic *C. pneumoniae* protein or fragment thereof.

12. Use according to claim 11, wherein the immunogenic *C. pneumoniae* is administered in a low dose comprising between 50 and 200  $\mu$ g DNA per inoculation.

13. Use according to any of claims 1 to 9, characterized in that the medicament is co-administered to said mammal with an effective amount of an anti-microbial agent effective against *C. pneumoniae* infection.

14. Use according to claim 13 wherein said anti-microbial agent comprises a chemical composition which kills *C. pneumoniae* in vivo.

15. Use according to any of claims 10 to 14, wherein said co-administering step occurs before, during or after said administering of said medicament.

16. Use of an immunogenic *Chlamydia pneumoniae* protein or fragment thereof in the preparation of a medicament for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal, wherein said medicament is administered to a mammal in an amount which induces cell mediated immunity and/or antibody response in the mammal.

17. Use according to claim 16 wherein said composition is a killed *C. pneumoniae*.

18. Use according to claim 16 wherein said amount is a low dose comprising between about 10 and about 80 mgs protein per inoculation.

19. Use of a nucleic acid sequence encoding an immunogenic *C. pneumoniae* protein or fragment thereof in the preparation of a medicament for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal, wherein the medicament is administered to the mammal in an amount which induces cell mediated immunity and/or an antibody response upon expression of said protein or fragment in said mammal.

20. Use according to claim 19 wherein said medicament comprises a recombinant vector comprising a nucleic acid sequence encoding said protein or fragment under the control of a regulatory sequence capable of directing expression of said *C. pneumoniae* protein sequence.

21. Use according to claim 20 wherein said vector is a virus selected from the group consisting of adenovirus, poxvirus, and retrovirus.

22. Use according to any of claim 19 to 21 wherein said amount is a low dose comprising of between 50 and 200  $\mu$ g of DNA per inoculation.

23. Use of an anti-microbial composition in the preparation of a medicament for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal, wherein the medicament is administered in an amount effective to reduce or eliminate *C. pneumoniae* infection.

24. Use according to claim 24 wherein said anti-microbial agent comprises a chemical composition which kills *C. pneumoniae* in vivo.

25. A composition useful for preventing or retarding the development of atherosclerotic lesions or restenosis in a mammal comprising, in a suitable pharmaceutical carrier,:

(a) an amount of an anti-microbial composition effective to reduce or eliminate *C. pneumoniae* infection; and

(b) an amount of an anti-viral composition effective to reduce or eliminate HCMV infection.

26. The composition according to claim 25 wherein said anti-microbial composition (a) is selected from the group consisting of:

- (i) a chemical composition which kills *C. pneumoniae* in vivo;
- (ii) a composition comprising an immunogenic *Chlamydia pneumoniae* protein or fragment thereof, said amount inducing cell mediated immunity or cell mediated immunity and antibody response directed against said *C. pneumoniae* in a mammal; and
- (iii) a nucleic acid sequence encoding an immunogenic *C. pneumoniae* protein or fragment thereof, said composition inducing cell mediated immunity and/or an antibody response directed against *C. pneumoniae* upon expression of said protein in a mammal.

27. The composition according to claim 25 or claim 26 wherein said composition (b) is selected from the group consisting of:

- (i) an anti-viral chemical reagent;
- (ii) a composition comprising an HCMV protein or fragment thereof, said amount inducing cell mediated immunity or cell mediated immunity and antibody response directed against said HCMV in a mammal; and
- (iii) a nucleic acid sequence encoding an HCMV protein or fragment thereof, said composition inducing cell mediated immunity and/or an antibody response directed against HCMV upon expression of said protein in a mammal.

28. Use of a composition according to any of claims 25 to 27 in the preparation of a medicament for the treatment of atherosclerotic lesions or restenosis.

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